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Richter, Alexander ; Hetmank, Corinna ; Klier, Julia ; Klier, Mathias ; Müller, Maria

DOI: https://doi.org/10.1109/HICSS.2016.527

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Alexander Richter
University of Zürich
arichter@ifi.uzh.ch

Corinna Hetmank
TU Dresden
corinna.hetmank@tu-dresden.de

Maria Müller
TU Dresden
maria.mueller@tu-dresden.de

Julia Klier
University of Regensburg
julia.klier@wiwi.uni-regensburg.de

Mathias Klier
University of Ulm
mathias.klier@uni-ulm.de

## Abstract

*The increasing use of Enterprise Social Networks (ESN) has been resulting in important changes in individual work practices, and is subject of numerous studies. From both a theoretical and a practical perspective, there is a lack of well-founded knowledge on how the implementation of ESN can be supported best to trigger both learning and change processes in the enterprise. For such processes, managers have a strong multiplying and "role model" effect. Therefore, following a case study approach, we conducted 15 interviews with managers at different hierarchical levels at a financial services provider to identify factors obstructing the successful ESN introduction and implementation. Understanding these obstructing factors is an important prerequisite for the competency development of both management and staff for a successful ESN implementation.*

## 1. Motivation

Due to the constantly increasing popularity of social networks such as Facebook and Twitter, many companies have begun to tap the potentials of similar platforms for facilitating staff interactions. The growing use of so-called Enterprise Social Networks (ESN) to support cooperation and knowledge management in companies has already been investigated in a plethora of studies [1-5]. Commonly, ESN are said to result in important changes in work practices as well as in more staff flexibility and self-determination [3-5].

Even though science still finds it difficult to sharpen the line between ESN and other IT systems, many scientists argue that existing theories and methods have to be questioned, adjusted or even redeveloped to explain the specific phenomena associated with ESN [1, 6, 7]. In this context, while there is a large number of studies explicating user behavior in ESN [4, 8-10], there is still a lack of understanding how such platforms can be implemented in order to maximize the benefit for the staff. First answers may be provided by the managers of companies. Their influence on the exploration and promotion of IT platforms is highlighted in existing studies [11, 12]. In their function as role models, they make an important contribution to the staff integrating the new technologies into their daily work practices. Consequently, as the enterprise's managers develop their knowledge and skills regarding the use of ESN in their own daily work [13] and also show their willingness to accept and actively shape a cooperative corporate culture [14, 15], they succeed in triggering learning and change processes in the entire enterprise [16]. In this context, learning is (to be) understood as an individual and sustainable process to adjust one's actions to new requirements of the enterprise environment, with the process of developing competences being of particular importance [17]. Due to their central role, managers are also important sources of information when it comes to identifying obstructing factors (i.e. interference factors) that slow down, hinder or totally block the learning process needed to integrate an ESN into the daily work routines [16]. Knowing about such obstructing factors is the basis for deriving support measures for the implementation of an ESN in an enterprise. Therefore, it is reasonable to extend the existing discourse of success factors (e.g., [9, 10, 18, 19]) to the implementation of ESN by a didactic perspective to explicitly take into account the mentioned necessary learning and change processes.

Our paper focuses on the following research question:

*Which obstructing factors are – from a managers' view – opposed to the integration of an ESN into the personal work practice?*

The remainder of this paper is structured as follows: In Section 2, we provide a short description of the theoretical background. In Section 3, we introduce our research method, the case of a German financial

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DOI 10.1109/HICSS.2016.527

services provider, and our interview data set which is analyzed by means of qualitative content analysis. Our analysis reveals obstructing factors as perceived by managers of the financial services provider that are opposed to the learning process and thus to the use of ESN in every day work practice (cf. Section 4). In Section 5, we categorize and discuss the obstructing factors identified by means of pedagogical concepts. Our paper concludes with a brief summary and an outlook on further research (cf. Section 6).

## 2. The role of managers in the learning and change processes of ESN implementation

In the following, the potentials of ESN and the role of managers in their successful implementation are described building the theoretical base of the methodological proceeding in our case study. Further, we explain why the staff's upgrading of skills is essential for successfully implementing an ESN. Finally, the idea of competence as well as the process of developing competences are presented as the central concepts of our paper.

### 2.1. ESN and the role of managers

Today, modern communication technologies enable people to keep in contact with friends and acquaintances, to network with likeminded people in specialized communities, and to develop and realize new ideas [20-23]. Also enterprises benefit increasingly from using new media enabling, for instance, greater transparency of projects and activities or easier participation in them [10]. These new types of interaction are the base of a more efficient goal-oriented collaboration, and they tap innovation potentials so far unused [1, 2, 24].

In addition, for the staff of an enterprise, these new media may also serve as an instrument to be heard and a feedback channel contributing to reducing information hierarchies and to creating a more open communication culture [25, 26]. Also, the staff's global network(ing) serves as a catalyst for work practices and structures that, in many cases, had already started to change independent of the new technologies. On the one hand, the employees may benefit from more flexible, individual forms of work. On the other hand, however, they have to cope with the increasingly blurred boundaries between work and personal life and find individual ways to deal with constantly changing work environments [27].

Regarding the integration of ESN into work practices, the role of managers in leadership positions is of vital importance [12]. Managers are essential promoters and multipliers of learning and change processes that may be based on strategy, culture and/or structure [12]; they serve as role models and influence values, attitudes and behaviors throughout the enterprise [28]. At the same time, the repertoire of the roles of managers (from which to choose) is presently facing a paradigm shift: Today managers are called upon as "facilitators", to set good examples as regards corporate values and attitudes, and to support their staff as "primus inter pares", being on equal footing with them [29]. In addition, e-leadership, and the knowledge of how to use the new technologies, is increasing in importance [30].

In summary, to work in networking structures using new technologies not only requires special abilities and knowledge of managers [13], but also their willingness to adapt and actively shape a corporate culture that supports the collaboration throughout the enterprise [14, 15], as well as to develop an innovative understanding of roles. In the following, we deal with the development of competences necessary for these learning and change processes.

### 2.2. Learning and developing competences

Both the managers and the staff have to learn to adapt their actions to the new requirements of the changing work environment [16]. In so doing, it is often not sufficient to (just) extend their expertise and skills in dealing with the new technology. Rather learners have to develop competences enabling them to tackle problems occurring in changed work environments autonomously [17]. Learning processes in times of organizational change should therefore go along with the development of competences of both managers and staff [17], which is not only the base of a successful integration of ESN in the individual work practices, but also of institutional learning. Structures and processes in an enterprise only change, once individuals have learned something and changed their behavior or attitudes.

Even though literature has a multitude of definitions of the term competence, there is (largely) consent that the competences consist of the three components *knowledge*, *skills* and *attitudes* [31]. In the narrower sense, knowledge consists of (professional) expertise and method know how [43, 44]. Skills are referred to as learned abilities automated by exercise used in the daily work routine, with abilities meaning consolidated systems of generalized psycho-physical action processes [17]. Attitudes are rules, values and standards enabling individuals to act in a situation even if their knowledge about the said situation is insufficient or only rudimentary. As attitudes help to compensate a lack of knowledge and thus to act, they

are especially important in the context of accelerated change in enterprise environments [32].

To develop competences in individuals, they have to interiorize values, standards and rules thus creating personal emotions and motivations. Therefore, competences cannot be conveyed, but must be acquired by the individual as part of their physical and intellectual actions. In addition, competences are not measurable and only become visible in the performance of individuals. The process of developing competences, also referred to as *competence learning*, consists of four subsequent phases: knowledge transfer, knowledge processing, knowledge transfer to practice and the development of competences [17]. In the phase of knowledge transfer, individuals independently acquire basic knowledge, methods and instruments needed to solve a concrete problem from their work practice. The newly learnt knowledge is then consolidated and secured by means of didactically edited exercises, simulation, experimental games or case studies. In the phase of knowledge transfer, knowledge is transferred to real world work practice and put to the test in the context of first short practical exercises or projects. The repeated application and reflection of knowledge in practice enable the gradual transition of knowledge into skills. The last phase of competence learning comprises the development of competence, which requires a repeated confrontation of the individual with both a knowledge-related and emotionally challenging problem to trigger the adoption or change of values, standards and rules necessary for the development of competence [17].

Since managers, as described above, are important in their function as role models to establish new technologies in the enterprise, we investigate in this study their view of the obstructing factors when implementing an ESN taking into consideration the didactic perspective. In so doing, we also consider the four phases of competence learning. Our approach and the results are presented in the following.

## 3. Case study

As the didactic perspective has not yet been applied onto an ESN implementation and due to the exploratory nature of the research question (*Which obstructing factors are – from a managers' view – opposed to the integration of an ESN into the personal work practice?*), we decided for a qualitative research design [33]. In this context, case study research enables to attain a largely holistic understanding of the object of analysis on the basis of a detailed description of the situation [34-37]. Since the investigation focuses on the subjective perceptions of managers, exclusively interviews were taken as a data basis [38].

The enterprise under consideration is an internationally operating financial services provider with approximately 150,000 employees, headquartered in Germany. The implementation of the ESN was intended to enable a company-wide staff network, an inter-divisional (thematic) exchange of information, the documentation and the transfer of knowledge as well as the joint advancement of topics and innovations.

In view of our study, it was an advantage that we had extensive background knowledge of the company and the project, because one of the authors of this paper had already been involved in the implementation of the ESN in the autumn of 2011, accompanying the project with different workshops, several interview studies followed by interventions regarding the selection of the platform, its implementation and subsequent performance measurements. Against this background, it was easier for the authors to understand statements made by managers on the basis of our existing cooperation infrastructure and the implementation of the platform.

The data set of our investigation consists of 15 one-hour guided one-to-one interviews of managers on different hierarchical levels (level 1 to 3), which were conducted from August to October 2012. Table 1 provides an overview of the interviewees.

The manual used in the semi-structured interviews contained questions about the IT affinity and the style of leadership of the interviewees, about their previous experiences with Social Software in general as well as with special in-house IT platforms. Further, perceived opportunities as well as obstructing factors regarding the use of the new ESN in the daily work routine were inquired of the interviewees.

Analyzing the data, the obstructing factors named by the managers were in the center of interest. The aim of the qualitative content analysis consisted in identifying these factors by summarizing and interpreting the available data [33]. To start with, all statements made by the managers containing factors obstructing the integration of the ESN into work practice(s) were coded and categorized (categorization) [33]. This procedure was applied to all of the transcribed interviews constituting the base for a preliminary system of categories. To increase objectivity of the analysis, the next step was to pass on this material and the generated categories to a second coder who verified them. As a result of this multiple-stage process, we were able to establish categories of perceived obstructing factors relating to single individuals.

**Table 1. Overview of the interviewees**

| *Hierarchical level* | *Span of control* | *Self-assessment of IT affinity* | *Interviews (I)* |
|---|---|---|---|
| Level 1 | Several hundred employees | low | I1 |
| | | medium | I10, I14 |
| | | high | I15 |
| Level 2 | 10 to 99 employees | low | I2, |
| | | medium | I3, I8, I9, I12 |
| | | high | I6 |
| Level 3 | 1 to 9 employees | low | - |
| | | medium | I4 |
| | | high | I5, I7, I11, I13 |

## 4. Results

Table 2 provides an overview of the obstructing factors that, in the managers' view, oppose the integration of an ESN into the individual work routine(s).

As competence learning had already been recognized as a necessary process in the course of the implementation of an ESN by both managers and staff, we structured the 19 identified factors according to the competence components already introduced. The classification of the individual factors was based on the question as to whether they can be assigned to the field of professional expertise and method know how (knowledge), of learned consolidated, generalized action processes (skills) or of rules, values and standards enabling individuals to act if their knowledge is insufficient or only rudimentary (attitudes) [17]. Thus, the resulting table does not only summarize the empirically determined obstructing factors, but also sheds light on the different degrees of complexity. As the learning process, from knowledge via skills to attitudes, becomes more comprehensive (cf. Section 2.2), also the complexity of the obstructing factors increases over the individual competence components. In the following subsections, we introduce in more detail the obstructing factors based on how they were assigned to the individual competence components before.

**Table 2. Categorization of the obstructing factors according to the competence components**

| *Competence component* | *Obstructing factors (managers' perspective)* |
|---|---|
| Knowledge | 1) Difficulties to find certain information (due to the ESN structure) |
| | 2) Relevant information is not being identified (and acknowledged) |
| | 3) Danger of not to receive the important information |
| | 4) Potential obsolescence of information |
| | 5) Conflicting information |
| | 6) Not replacing other existing tools |
| | 7) Lack of feedback |
| Skills | 1) Lack of processed information |
| | 2) Loss of the information context (informative value) |
| | 3) Higher complexity due to coordination of more channels |
| | 4) Expenditure of time (due to the scope of their normal) |
| | 5) Potential for conflict |
| | 6) Determination of the boundaries between private life and work |
| Attitudes | 1) Rejection of new information channels |
| | 2) Reservations about new tools and communication forms |
| | 3) To adhere to accustomed work routines |
| | 4) Secrecy of knowledge |
| | 5) Rejection of the public (due to large number of users) |
| | 6) Pressure to take an active part in the ESN |

### 4.1. Obstructing factors regarding the competence component "knowledge"

As a rule, we assigned the obstructing factors identified in the data derived from the interviews to the knowledge component, if they originated from insufficient or lacking professional expertise and methodological knowledge of the interviewees.

In this context, a first obstructing factor stated in the interviews of the managers refers to the fear that they themselves and their staff are *not able to find certain information* due to the internal structure of the ESN. One particular manager describes his experience with Wikipedia available in the enterprise since 2009 (inter-view 4 (I4)): *"Unfortunately, and this is my second reason, it is not possible to publish information or make it available to everyone who is interested (in it). With Wikipedia, this only works in few situations."* In addition to the difficulties of finding information, managers also fear that the enormous amount of available information may result in the fact that *relevant information is not being identified and acknowledged* (I1): "*So it may well happen that one or the other information slips through the net, because I (...) or my staff overlook it because it gets lost in the shuffle (...).*" Using the ESN, according to the managers, is seen as dangerous in the sense that members of staff do *not receive the important information* (I7): *"There were, at the time, a lot of people who didn't go into the available Social Media tools (...). Naturally, there is always the danger (...) that they get kicked out of the information cascades."* Another obstructing factor for the use of ESN that is stated by the managers is the *potential obsolescence of information* (I3): *"Well, I'm absolutely no friend of Wikipedia, for me, Wikipedia is somehow a huge data cemetery (...), I often feel that many things you find there are long outdated.*"

The interviews also suggest that unrestricted communication might result in *conflicting information*. In consequence, this fact is expected to affect the efficient use of information (I13): *"Otherwise the efficiency is suffering, I give you an example: Which information is correct? I have two pieces of information, yes and no, and, oops, it's extra work for me, because I have to check things (...)."* In addition, the statements made by the managers we interviewed illustrate a skepticism towards the idea of an ESN becoming the only platform thus *replacing all other existing tools* prior used (I11): *"I don't see it as an exclusively new medium of communication, but as a medium to complement the existing ones. And I don't believe that it will replace the normal email correspondence."* Further they perceive the danger that there is no feedback to entries in the ESN and that the *lack of feedback* could reduce the motivation to continue the use of the platform (I12): *"So when people make an entry and they don't get an answer, they'll lose the interest in it, won't they?"*

### 4.2. Obstructing factors regarding the competence component "skills"

We assigned the obstructing factors perceived by the managers to the component skills if they originated in insufficiently consolidated or entirely absent generalized action processes.

In the opinion of several of the interviewees, the *lack of processed information* in the ESN for certain target groups complicates the channeling of information (I9): *"There is already such a flood of information that some of the people really feel inundated with it. (...) I think something must have got lost, who really is the addressee of an information."* In addition, the possible *loss of the information context* that leads to misunderstandings between sender and addressee or to a lack of informative value of the information is also seen as negative in view of the ESN use (I1): *"Whenever I search for an information in, let's say Wikipedia, I often find it difficult to interpret it, to tell what is (really) meant, what do I do with the information?"* Another result of the analysis of the interviews illustrates that, in the opinion of the managers, the communication among users is not only facilitated (as desired) but can also be more complicated. The interviewees were aware of the difficulty that the implementation of an additional (information) channel also meant that they would to have to *coordinate even more channels* (I7): *"If we have further channels, it becomes more complex, I think, because it takes time off my own time I have for my work."*

Another obstructing factor for continuous use of ESN mentioned in the interviews is the *expenditure of time*. The managers express their concern that, due to the scope of their normal duties, they do not have enough time for the (additional) use of the ESN (I2): *"I just don't see how I could possibly invest another two hours each day to hang around in Social Media, what a waste of time?"* At the same time, managers express their fear that their staff spends too much time for using the new platform (I3): *"Well, for me, the danger is that people spend too much time in Social Media. (...) what's the use of it, this time could be used much better to (...), this is also a way to waste your day."* Moreover, managers attribute a general *potential for conflict* to the exchange of information via ESN, and they approach their use with caution (I15): *"As a top manager, you obviously have to weigh your words if*

*someone asks you about such controversial subjects. A wrong or rash answer can destroy a lot of confidence."*

Finally, the interviewees are sceptic about the *determination of the boundaries between private life and work* caused by the implementation and the permanent access to ESN (I8): *"So, the individual responsibility of each employee will be all the more important. People will automatically take job problems home. Switching off the job, which is also very important, becomes far more difficult."*

### 4.3. Obstructing factors regarding the competence component "attitudes"

We allocated factors referring to a lack of reality recognized as desirable and necessary in the sense of a networking enterprise, to the component "attitudes".

The interviews revealed that the direct transfer of information skipping intermediate hierarchy levels evokes negative feelings in managers leading to the *rejection of new information channels* (I12): *"Well, I hate it if my supervisor can't wait to tell me that a colleague has told him about problem of which I haven't even heard."* In addition, it was mentioned that the potential users have *reservations about new tools and communication forms* (I8): *"Believe me, there are quite a lot staff who have reservations about these things."* Further, managers state that especially older staff members tend to *adhere to their accustomed work routines* and are not prepared to change them in favor of new technologies or even give them up entirely (I10): *"Our staff in B7 has an average age of 50 years, and I for my part have the impression (...) that the older you are the less open you are to changes or new things."* Yet another identified obstructing factor is that staff and managers alike may *keep their knowledge secret* and do not want to share it in ESN (I4): "*Most of the people prefer to keep their know-how a secret, because it's arcane knowledge, that's what I observed or may be my own black-hearted interpretation."* Both managers and staff could have difficulties with accepting the possible *huge number of users*, resulting in a possible visibility of personal data and the users' activities to other users in the ESN (I2): *"(...) this means a transparency that I find scary"*; (I5): "*(...) I do have some people here who clearly say: 'No, I won't use these media, I don't want to be on public display, no way.'"* Finally, the managers criticized a possible *pressure to have to take an active part in the ESN* by reading, reacting or acting proactively (I8): *"(...) suddenly topics come up that you can't let float, that you eventually have to comment to prevent a discussion from taking the wrong direction. (...) Immediately I feel put on the spot and have to give information (...)."*

## 5. Discussion

In our analysis, we identified 19 factors – as perceived by managers – obstructing the integration of an ESN into the daily work routine. These obstructing factors were categorized on the base of the competence components knowledge, skills and attitudes. The awareness of this categorization directly results in starting points for deriving and designing support measures.

The *component knowledge* contains in particular factors implying a lack of understanding of and confidence in the new technologies. The reason for the rejection of ESN and the articulated fear of not being able to handle them, because information is, for instance, not found or not recognized, or their reliability (e.g. age or validity of the information) cannot be assessed, lies, in particular, in the missing knowledge about ESN as such (their logic, design and functionalities) and the resulting new work approach. To refute such fears, it would be helpful to provide simple and easy-to-understand explanations and demonstrations of the possibilities of ESN, for example, introducing tags as annotations or offering to follow users and contents. The obstructing factors regarding the component knowledge should be counteracted by explaining the underlying paradigma of information exchange in ESN in trainings or workshops.

As regards the *component skills*, explanations and/or demonstrations will not be sufficient to reduce the obstructing factors. Analyzing the data, we identified for instance the difficulties of both coordinating different channels and determining the boundaries between private life and work. These two factors cannot be simply refuted by imparting additional knowledge and information on ESN. Instead, it would be helpful to introduce potential strategies as to how to handle ESN, which can be tried out (immediately afterwards). Thus, the effect of these strategies could be assessed, if necessary, modifications could be made, and repetitive applications could improve the understanding of ESN so as to generate generalized action processes. In addition, it is important that these steps take place based on the statements made on the transfer of knowledge (cf. Section 2.2) in the individual's actual work environment, and that selected solutions are discussed with him or her. This process could, for instance, be supported by real or virtual coachings or by offering moderated information exchange.

Since the development and change of *attitudes* are long-time processes, it is particularly difficult to reduce the obstructing factors identified for this component as for instance existing reservations about new technologies or not being prepared to give up old routines or to share knowledge. Thus, these obstructing factors can only be remedied via own or communicated positive experiences. Individuals have to experience potential use cases of ESN application, recognize the personal benefit of the potentials of the new technology and include it into their (daily) work routine(s) [39]. Outside observers as for instance managers cannot exercise full control of such processes [19], but can only encourage the individuals to be more receptive to experiment and reflect, and pass on, in their role as *facilitator* for best practices [16, 29].

Within the framework of their model of competence learning, Kuhlmann and Sauter highlight the fact that individuals without knowledge can develop neither skills nor attitudes without applying the skills in practice [17]. This connection between the competence components can also be identified in the empirically derived results of our case study. For instance, the knowledge about where and how information is stored in ESN is of vital importance for reducing the time needed to handle the ESN, which may result in positive experiences with the platform and in reducing reservations with ESN. The other way round, an individual is (all) the more likely to adhere to his/her accustomed routines, the more difficult s/he finds it to coordinate the new platform with other information channels and the greater s/he rates the probability not to be able to find relevant information in ESN.

As the development of competences, for both staff and managers, is only possible after having eliminated existing obstructing factors, those in charge should not forget to also include apparently simple measures on the level of knowledge acquisition as for example (the formal announcement of) training opportunities. Table 2 illustrates that the major part of the empirically determined obstructing factors are found in the components knowledge and skills. In this context, the above described active acquiring, experimenting and reflecting of the new technologies in the daily work to include them in it can only be successful [39], if the learner is provided with suitable criteria and comparative values [40] or if s/he knows the result to be attained [41]. On the third level of competence learning, active acquisition (of knowledge) as part of the daily work routine starts with the transfer of knowledge into practice [17] and must not ignore possible obstructing factors in the components knowledge and skills. In the discussion of support measures, the results of our study help to examine to which competence component the obstructing factor belongs to address it accordingly. In so doing, it should be considered if the addressed obstructing factor is to be located exclusively with the (single) individual and can be eliminated with measures of competence development or if, may be, interventions have to be made on technical or institutional levels.

As the present examination is a single case study, its results are, for the time being, only valid in the current context. Moreover, our interviews only consider obstructing factors as perceived by managers. Whether these factors are perceived similarly by all stakeholders of a newly implemented ESN, could not be determined in this examination and would have to be empirically proven by further research. Furthermore, the investigation does not allow for any statement as to how many managers agreed with a certain obstructing factor. To gain the best possible understanding of the subject of our investigation, we categorized all of the obstructing factors named, irrespective of the frequency of them being reported in the categories. To answer the questions as to whether the obstructing factors differ depending on the individual span of control of the managers interviewed and as to which subjective importance is attributed to the single factors when an ESN is implemented, is not possible either, due to the survey method used in this case study. Further, we found that the transitions between the individual competence components are smooth, which can be illustrated by means of the identified obstructing factor expenditure of time: When analyzing the data, this factor was assigned to the component skills, because the enormous expenditure of time needed – according to the statements of the interviewees – is mainly due to the missing work routine using the ESN. In addition to that, the perception of an enormous expenditure of time is also influenced by the attitudes of an individual. The more positive the (basic) attitude towards the new technology, the less irksome the time expenditure is perceived. To be precise, the obstructing factor is situated right on the boundary between the components skills and attitudes. As skills affect attitudes, the expenditure of time was assigned to the less complex component.

Despite these limitations mentioned, starting points of a new field of research could be derived from the case study and its results. New context-dependent knowledge regarding the didactics of ESN implementation in an enterprise could, for example, be derived by means of a qualitative analysis of the interviews thus laying the foundation of future discussions and research.

## 6. Conclusion

The results of our case study provide a structured overview of obstructing factors for using ESN as perceived by managers. Our didactic perspective on the implementation of an ESN extends the current scientific discourse by a new aspect. The main contribution of our paper is, on the one hand, that the case study results illustrate the relevance of competence development of individuals for a successful ESN implementation in an enterprise, and, on the other hand, that approaches for support measures can be directly derived.

The results of our case study provide in particular two starting points for future research. First, to extend the empirical data base to thus validate the results, and, second, to evaluate the interviews of the managers that have already been analyzed in view of statements made about potential measures to reduce the obstructing factors and to assign them as well to competence components thus creating a broader base for discussing future support measures. To extend the data base, the interviews conducted with the managers could be conducted with the staff of the enterprise as well to include these new results in the analysis, too. To validate the results of our study, it would be advisable to repeat the investigation in another enterprise. A comparative analysis of several case studies would enable to reveal complex patterns of relationships between the obstructing factors within and between the cases as well as the underlying logic argumentation [34, 37].

Moreover, the results derived could be used to define first concrete measures to eliminate obstructing factors. In addition to its structuring function, Table 2 could serve as a basis to derive such support measures in the future. It illustrates which competence component is primarily concerned by each of the obstructing factors and indicates concrete starting points how to trigger learning processes in individuals. It would for instance be possible to only acquire knowledge and skills in (formal) qualification courses. The development of values, however, is linked to the reality of everyday work life [17]. Principally, there are numerous ways to develop competences, learning methods such as formal learning, socialization, "en passant" learning, informal learning as well as non-formal learning. Our first reflections should be picked up to develop a (concrete) catalogue of measures to support the learning processes of individuals regarding the integration of ESN into work practice, with the objective of supporting both managers and staff to use ESN platforms in a reflective manner.

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